Within each of these four subgroups, there was a review lecture followed by a number of short presentations (26 in all) which offer variety and different perspectives. Particularly useful were the longer articles on bronchoconstrictor actions of phospholipids including PAF (Vargaftig), the role in lung and therapeutic relevance of pulmonary adrenoceptors (Ind and Dollery) and two contributions concerning the use of methylxanthines and the newly developed enprofylline (Svedmyr, Persson). These important drugs have been a little neglected by pharmacologists in recent years but are clearly making a comeback and it is of interest that there is now considerable debate about their mode of action. Originally proposed to cause bronchodilatation by phosphodiesterase inhibition, and latterly considered perhaps to be acting via adenosine antagonism, neither explanation seems sufficient to account for their therapeutic actions in the lung. This shows the need for further research on these agents and, by implication, on smooth muscle pathophysiology.

Although there are many omissions of topics relevant to the immunopharmacology of asthma (e.g., recent advaces in the biochemical basis of corticosteroid action, and of immunologically-triggered mast cell-dependent mediator production), this book will be a useful source of information to researchers working in the field.

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Brush Border Membranes

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To those who associate brush border membranes principally with transport, the contents of this CIBA Foundation Symposium may come as something of a surprise. Apart from one paper on co-transport systems in the brush border membrane of the human placenta and another on the Na^+,K^+-ATPase, transport takes very much a back seat. The Na^+,K^+-ATPase is of course in any case not a component of the brush border membrane, but is included to fit in with the emphasis of the symposium on molecular aspects of structure and function. Two topics are covered in depth; the hydrolases of brush border membranes and the microvillus cytoskeleton. In addition, two papers are devoted to studies of immunoglobulin G receptors on intestinal brush borders of neonatal rats.

The glycosidases and peptidases of brush border membranes are typical of membrane-bound enzymes in having their enzymic activity associated with a large hydrophilic moiety which is anchored to the membrane by a relatively small hydrophobic segment. The first part of the book describes work from several different groups on the structure and topology of these enzymes. In view of the considerable current interest in membrane biosynthesis it is not surprising that the mode of synthesis and assembly of brush border enzymes receives particular emphasis. The production of monoclonal antibodies to several of these enzymes is also described and these should facilitate further progress in this area.

Several contributors describe advances in characterizing the components of the microvillus cytoskeleton. The progress which is being made towards understanding the structure, regulation and mode of attachment to the membrane will undoubtedly attract much interest from cell biologists and membranologists alike.

As always with the CIBA Foundation Symposia, the discussions following the formal papers provide additional valuable insight. Whilst those who seek molecular details of the transport proteins will have to be patient for a while yet, there is much in the book to justify the claim of the brush border membrane to be at the forefront of the elucidation of membrane structure and function.

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